



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/767,812

01/29/2004

Jack D. Patterson

65856-0055

5699

10291

7590

06/20/2005

RADER, FISHMAN & GRAUER PLLC
39533 WOODWARD AVENUE
SUITE 140
BLOOMFIELD HILLS, MI 48304-0610

EXAMINER

BARAN, MARY C

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Handwritten mark

Office Action Summary

Application No.

10/767,812

Applicant(s)

PATTERSON ET AL.

Examiner

Mary Kate B. Baran

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 29 January 2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 8-11, 14-16, 18-21, 24-26, 28-39 and 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Davis et al. (U.S. PG-Pub No. US 2002/0027504) (hereinafter Davis).

Referring to claims 1, 18, 28 and 41, Davis teaches a data link tester comprising: a computer comprising a processor and a memory (see Davis, Figure 2 "CPU 230" and "memory 235"), wherein the computer is capable of a connection with a communications bus in a piece of equipment and further wherein the piece of equipment comprises at least one component of interest in selective contact with the communications bus (see Davis, page 3 [0023]); and instructions stored in memory and executable by the processor for building a roster comprising at least one identifier of the component (see Davis, page 8 [0061]) and then performing a diagnostic step comprising analyzing communications received from the communications bus to determine the condition of communications with respect to the component (see Davis, page 8 [0066]), determining whether a message that contains the identifier has been received from the

Art Unit: 2857

communications bus within a specified period of time (see Davis, page 8 [0065] lines 15-24), and diagnosing at least one fault condition in the communications bus by performing at least one message check comprising determining whether a message has been received from the communications bus and then performing at least one second diagnostic step (see Davis, page 8 [0064]).

Referring to claims 2, 20 and 38, Davis further teaches a user interface (see Davis, page 2 [0021] lines 12-19).

Referring to claims 3, 21 and 39, Davis further teaches that the computer is a component controller (see Davis, page 3 [0023]).

Referring to claim 4, Davis further teaches that the identifier is associate with at least one of a component description, a time not communicating, a number of bad messages, and a component serial number (see Davis, page 8 [0066]).

Referring to claims 5, 6 and 8, Davis further teaches determining whether there has been a lost communications event, a time not communicating or a number of bad messages relating to the identifier (see Davis, page 8 [0065] lines 15-24).

Referring to claim 9, Davis further teaches determining that the communications received from the communications bus contain at least one second identifier of at least

Art Unit: 2857

one second component in the piece of equipment, wherein the second identifier is not in the roster (see Davis, pages 8-9 [0067]).

Referring to claim 10, Davis further teaches that the instructions stored in the memory are further executable by the processor for adding the second identifier to the roster (see Davis, page 9 [0068]).

Referring to claim 11, Davis further teaches extracting from the communications received from the communications bus information related to the identifier (see Davis, page 8 [0066]).

Referring to claims 14, 25 and 36, Davis teaches that the piece of equipment is a vehicle (see Davis, page 9 [0075]).

Referring to claims 15, 26 and 37, Davis teaches that the computer is on board the piece of equipment (see Davis, page 9 [0075]).

Referring to claims 16 and 24, Davis teaches a second computer capable of receiving data that the computer causes to be uploaded from the memory (see Davis, page 8 [0066] lines 14-18).

Referring to claim 19, Davis teaches that the specified period of time is in a range from approximately 400 ms to approximately 2.5 seconds (see Davis, page 8 [0065] lines 15-24).

Referring to claims 29 and 31, Davis teaches determining whether a specified period of time exceeds an elapsed period of time between performance of a first message check in which a message was detected containing data and a second message check in which a message was detected either containing data or not containing data (see Davis, page 8 [0064]).

Referring to claim 30, Davis teaches determining whether a link open condition exists (see Davis, page 7 [0056]).

Referring to claims 32 and 33, Davis teaches determining whether a link shorted condition exists by determining whether the communications bus has been sending only ones or zeros for the specified period of time (see Davis, page 7 [0052] lines 5-8).

Referring to claim 34, Davis teaches determining whether an error has been received if a message has not been received from the communications bus (see Davis, page 8 [0064]).

Referring to claim 35, Davis teaches that the error is a cyclic redundancy check error (see Davis, pages 6-7 [0049]).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 17, 27 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. (U.S. PG-Pub No. US 2002/0027504) (hereinafter Davis) in view Calkins et al. (U.S. Patent No. US 2003/0088346) (hereinafter Calkins).

Referring to claim 7, Davis teaches all the features of the claimed invention except determining a number of messages received per second relating to the identifier.

Calkins teaches determining a number of messages received per second relating to the identifier (see Calkins, page 4 [0049] lines 4-9).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Davis to include the teachings of Calkins because determining the number of error messages would have allowed the skilled artisan to facilitate calculating error rates and determine whether or not a communication was lost.

Referring to claims 17, 27 and 40, Davis teaches all the features of the claimed invention except that the connection comprises a cable that supports the RS-232 data communications standard.

Calkins teaches that the connection comprises a cable that supports the RS-232 data communications standard (see Calkins, page 2 [0035]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Davis to include the teachings of Calkins because using an RS-232 communications standard would have allowed the skilled artisan to communicate with PC-based system for download and analysis, as well as interfacing with printers and display terminals (see Calkins, page 2 [0035]).

3. Claims 12, 13, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. (U.S. PG-Pub No. US 2002/0027504) (hereinafter Davis) in view Lesesky et al. (U.S. Patent No. US 2003/0040873) (hereinafter Lesesky).

Referring to claims 12, 13, 22 and 23, Davis teaches all the features of the claimed invention except that the computer communicates with the communications bus according to the SAE J1587 or 1939 standard.

Lesesky teaches that the computer communicates with the communications bus according to the SAE J1587 or 1939 standard (see Lesesky, page 9 [0077] lines 7-9).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Davis to include the teachings of Lesesky because using an

SAE J1587 or 1939 standard would have allowed the skilled artisan to allow typical diagnostics for the trucking industry (see Lesesky, page 9 [0077] lines 7-9).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Kapolka et al. teach a system for remote monitoring of a vehicle and method of determining vehicle mileage, jurisdiction crossing and fuel consumption.

(b) Baleta et al. teach a modular telecommunication test unit.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Kate B. Baran whose telephone number is (571) 272-2211. The examiner can normally be reached on Monday - Friday from 9:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2857

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11 June 2005


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800